

GENERIC · NETWORK

U064E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U064E

Lost Communication With EGR Cooler Bypass Position Sensor Bank 1

U064E is a generic network communication code indicating that a control module on the vehicle's controller area network (CAN) bus has lost contact with the exhaust gas recirculation (EGR) cooler bypass position sensor on bank 1. The module that monitors this sensor, typically the engine control module (ECM) or a dedicated emissions control module, has stopped receiving valid position data over the communication bus, so it can no longer verify whether the EGR cooler bypass valve is open or closed.

SYSTEM Network	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Intermediate	AREA Network communication
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Symptoms you may notice

- Illumination of the check engine light or a dedicated service emissions system message on the dashboard.
- Often no symptoms besides the warning light, especially if the bypass valve remains in a default position that does not severely affect driveability.
- Intermittent or permanent loss of EGR cooler function, which may cause slightly higher combustion temperatures and increased nitrogen oxide emissions.
- Possible rough idle or hesitation during light-throttle cruising if the bypass valve defaults to a position that disrupts exhaust flow.
- A stored pending or history code for the same sensor that may reappear after clearing, indicating an unresolved communication path fault.
- Reduced fuel economy in some cases because the ECM may substitute a default strategy for EGR control when sensor data is missing.



Common causes, most likely first

- 1 Damaged, corroded, or disconnected wiring or connector pins at the EGR cooler bypass position sensor or its inline harness connector.
- 2 A failed EGR cooler bypass position sensor that no longer responds or draws excessive current, causing the module to drop communication.
- 3 Open or shorted communication bus wiring (CAN high or CAN low) between the sensor's control module and the rest of the network.
- 4 A faulty control module that monitors the sensor, such as the ECM or a dedicated emissions module, losing its bus transceiver function.
- 5 Poor ground connection at the sensor or module, leading to intermittent voltage drops that corrupt bus messages.
- 6 Water intrusion or heat damage in the sensor connector or harness near the EGR cooler, common on high-mileage or heavy-duty applications.
- 7 Aftermarket electrical accessories or poor previous repairs that introduce noise or resistance on the communication bus.

How to diagnose and fix it

- 1 Perform a visual inspection of the EGR cooler bypass position sensor connector and the harness routing for chafing, corrosion, or loose pins.
- 2 Use a scan tool to check for communication with the sensor's control module and to read live bypass position data while wiggling the harness.
- 3 Measure resistance and voltage on the sensor signal and ground circuits at the sensor connector, comparing to manufacturer specifications.
- 4 Check the communication bus integrity by measuring CAN high and CAN low voltages and resistance at the diagnostic link connector (DLC).
- 5 If wiring and connectors pass inspection, substitute a known-good sensor or perform a bidirectional test of the bypass valve to confirm sensor feedback.
- 6 Repair or replace damaged harness sections, terminals, or the sensor as indicated by the test results, then clear codes and verify communication restores.
- 7 If the fault persists after sensor and wiring repairs, diagnose the control module's bus communication capability and replace the module only after confirming power, ground, and bus integrity.



Why U064E is often a wiring fault

- A loose or corroded connector at the EGR cooler bypass position sensor is far more common than a failed sensor, so always inspect terminals before condemning parts.
- This code can set intermittently from vibration or heat cycling, and a history code that does not return after clearing may indicate a marginal connection rather than a hard failure.
- Some vehicles route the sensor's communication through an intermediate module or gateway, so a fault in that module can set U064E even when the sensor itself is healthy.
- A low battery or charging system fault can cause multiple U-codes, including U064E, because modules drop off the bus when supply voltage sags during cranking.
- Do not replace the ECM solely for U064E until you have verified power, ground, and bus resistance at the module connector, since a shorted sensor can pull the bus down and mimic a module failure.

Can I keep driving with U064E?

You can generally continue driving with U064E because the engine will default to a safe EGR strategy, but avoid long periods of heavy load or towing until the fault is repaired, as the bypass valve may remain in a position that increases combustion temperatures. If the check engine light begins flashing or you notice rough running, stop driving and have the vehicle diagnosed promptly.

Tools that help

- OBD-II scan tool with live data and bidirectional control capability
- Digital multimeter with min/max recording
- Wiring diagram and connector pinout for the specific vehicle
- Terminal pick and electrical contact cleaner
- CAN bus breakout box or oscilloscope for bus integrity testing

Reading U064E

U	Network: communication between the vehicle's control modules.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
6	Network communication.
4E	The exact fault within that area.

Often seen with

P0400 Exhaust Gas Recirculation Flow Malfunction · **P0401** EGR Flow Insufficient Detected · **U0100** Lost Communication With ECM/PCM A · **U064D** Lost Communication With Trailer Brake Control Switch · **U064F** Lost Communication With Intake Manifold Runner Position Sens



See it working

Watch the animated explainer [How a Knock Sensor Works: Spark Timing and Octane](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u064e/>

